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DECISION-MAKING AND STATISTICAL STANDARDS

Your Excellencies, distinguished panelists, friends,
good morning. Governor Bellmon has been more than generous.
There is some doubt in my mind as to whether I am speaking
from my experience as a member of the American Society for
Public Administration; or Chairman of the Municipal Man-

power Commission; or Director of the Bureau of the Budget; or Administrator of a federal agency charged with increasing the competence and efficiency of industry, of universities and of government laboratories in those areas of science and engineering which are essential to exploring and using the earth's atmosphere and the outer space beyond it, but which are the same as those required for sound economic growth in a state or region. The efficient use of energy under close control; the processing and use of a whole range of new materials on which modern technology has opened the door; modern electronics and its handmaiden the completely engineered system concept; and, of course, the man or woman, or men and women, in the control and product loops of such systems.

But, from any point of view decision making proceeds best on a basis of organized facts and suffers most from those who rely on organized prejudice.

Most of the important decision-makers of today--senior officials in government, industry and the university world--were relatively young men during World War II, and hence

they have witnessed the rapid transformation of the American way of life within their adulthood. Between 1940 and 1964 the population in the United States increased about 45 percent while national income increased about 535 percent. This remarkable economic growth with income rising at a rate 10 times the population rise has lifted living standards sharply throughout the country. It has required a change in approach to national economic policy which places far more emphasis on fact-gathering and careful analysis, as well as increased recognition of the fundamental complexities of the inter-relationships which govern output and efficiency.

Many forces have been behind the Nation's progress in these post-war years, but one underlying factor has been a dramatic upsurge in the aspirations of citizens.

These higher aspirations have been a potent driving force and they will be even more powerful in the future. The American people are demanding more opportunities, better education, better health care, better recreation

and many other improvements. I need not remind this distinguished audience of the tremendous pressures for achievement and improvement at every level of government, or of the difficulties in understanding the basic facts of the existing situation or planning for the future. Nor need I remind any governor of the economic advantages to his state of having a healthier and better educated labor force. In the mid-1960's, America continues to face powerful and relentless challenges from without as well as within. As President Johnson has indicated, and repeated again this morning, these must and will be met. A dominant fact of life today is that in agencies like NASA, the momentum of scientific and technological advance coupled with a growing competence and efficiency in the management of large-scale organized efforts in these areas provide a new element of national power an element that vitally affects the balance of power between nations-- that places new emphasis on this technological balance even while we still struggle with the dollar, or trade or military balance.

Today in the United States, opportunities for new levels of economic and social achievement are made possible by five conditions which are more favorable than at any time in the past:

1. American science and technology have the competence, and versatility and management know-how to attack almost any problem, from the "better mousetrap" to the global weather satellite system to the "manned lunar landing" as a fully engineered system.

2. Satisfactory cooperative relationships have been worked out between governmental entities and the industrial and university sectors for financing, managing and carrying out research and development.

3. The Nation has sufficient resources to provide better education for all, better health care, better recreational opportunities and better environmental services and facilities which can cause industry and commerce to continue to flourish.

4. Mobility within the population, equality of opportunity and individual advancement on merit have reached a stage in this country beyond that achieved in all recorded history, and this has provided incentives toward excellence that are needed for future national achievement.

5. Modern information technology--computers and other automatic data processing (ADP) equipment--is opening up opportunities for vastly more sophisticated use of factual data in analysis, planning and management functions. The collection, display, evaluation, storage, retrieval and managerial and research use of information now incorporate new concepts of statistical sampling, simulation, operations research and sensitivity analysis. In permitting governmental units and private organizations to characterize problems, or segments of problems, in quantitative terms and to make valid comparisons, this new information technology provides a much firmer factual basis on which to meet unexpected developments and plan for the future.

NASA's data tracking network provides a good example of the use of this new information technology. Computers

linked with radar installations around the world tell NASA project managers where space capsules are and where they will be, and hence permit them to make real-time "go or no go" decisions which would not otherwise be possible.

Governor Bellmon has asked me to relate some of NASA's experience to his and I hope, your interest in statistical standarization at the state level.

Let me begin by saying that the formula for attaining advancing levels of economic and social achievement is not new. For a long time we have known that to maximize progress we must set our sights high, that we must analyze the facts which characterize the present and projected situations, and that we must have hard-driving leadership and initiative. Citizens must have trusted sources of information adequate to their needs as they play their parts in the decision-making processes of democracy. These factors apply at the state and local government levels and at the federal level. Leaders at all levels must provide well thought out, factually based analyses of needs.

Legislators must pass judgment on these and authorized and appropriate funds. Carefully selected administrators must push forward to execute the projects which make up the programs, and devise adequate feedback for continuous improvements of both substance and administration. Also, in today's mixed or cooperative system, private industry and universities must be brought in to give their best efforts.

President Johnson has summarized our challenge in these words:

"...in your time we have the opportunity to move not only toward the rich society and the powerful society, but upward to the Great Society. The Great Society rests on abundance and liberty for all."

His messages to Congress have spelled out a number of recommended new programs which offer new opportunities to state and local governments. But they also generate problems at all levels of government. U.S. Budget Director Charles L. Schultze recently remarked:

"New programs initiated to carry out the objectives of the Great Society must be solidly grounded in

factual information. The national effort to raise educational levels, to increase employment, to wage war against poverty and crime, to improve transportation and housing facilities--naming only some of our objectives--requires data not now available. It also requires to a much greater extent than ever before, data on a state or local area basis. The federal government and the states must work together to ensure the accuracy and comparability of the statistics underlying their mutual efforts."

Now my view is that the greatest single weakness in this regard is the absence of a common body of agreed statistical categories and concepts which are effectively utilized to provide data applicable to needs at the national, state, local and regional levels. Decisions with regard to subnational economies have been generally poor, inadequate, or ineffectual, and past efforts have not produced a framework and system of data collection for the field of regional and local economies comparable to that which has proved valuable at the national level.

The absence of agreed statistical concepts and their use to acquire adequate, comparable statistics at the state and local levels has often made it difficult to apply the full force of university researchers and public and private administrators to the solution of state and local problems.

These statistical and use problems and their implications for decision-making were brought forcefully to my attention while I was Director of the U.S. Bureau of the Budget in the post-World War II period and caused by deep interest in the Office of Statistical Standards and its work. Aggregative statistics available in Washington at that time were generally useful as national totals, but they often concealed rather than revealed the post-war problems in the states and regions. The fact that certain regions were adversely affected by decisions not intended to have that result, and that others were not realizing their economic growth potential was due not only to the lack of an adequate statistical base and a rational means for identifying needs and feasible approaches, but also

to a failure of university researchers, business leaders and state officials to work together toward common understandings of public problems and innovative solutions at the state and local levels. There was a tendency for these inadequacies to feed on each other and to adversely affect Congressional efforts to establish policies and programs with an optimum state-local-federal balance.

Therefore, the appearance of the subject of statistical standardization on your annual conference agenda means, I very much hope, that the governors of the fifty states are mounting a concerted attack on it.

To thoughtful students of government, it is clear that statistical standardization is not to be sought as an end in itself, but rather as a means of improved decision-making by governmental officials in the public sector and by private organizations as they help form and react to public policies. But it is far more than this. It is the means by which the creativity and research capabilities of university researchers, those who connect theory with practice, can be brought to bear on public

problems at the state levels. Our Chairman today, Oklahoma's Governor Bellmon has demonstrated this very effectively.

Among the priority problems which will be of critical interest to state decision-makers and which will shape data requirements are these:

1. What are the current figures on state population, employment and income, and what will these be in the future?
2. What will be the magnitude, composition and cost of future state programs?
3. What will be the sources of tax and other revenue available to the state under current systems?
4. What additional new sources of revenue will be available to the state, and what are their potential yields?
5. How can the state most advantageously participate in the broad range of federal equalization and other grant and assistance programs?
6. How can the state design and administer appropriate programs of equalization and other assistance to its

counties, metropolitan areas, and to its lagging regions?

7. What are the state's most feasible routes to maximum economic development?

8. How can the state most effectively manage its water and other resources internally and in cooperation with other states and regional units?

9. How can the state encourage and support the development of education and research?

In planning to deal with these state responsibilities, no state government can escape from two basic concepts which underlie our federal system--the fact that we have a national market and a free flow of interstate commerce. Economists have long recognized that the most important influence on any state is the state of our national economy.

While it is necessary to have facts on the needs and aspirations within states, it is also desirable to have yardsticks and measures which facilitate comparisons between expenditures, levels of effort and accomplishments within a state, with those of other states, and with certain national indices.

Two recently completed research efforts deserve attention. One is a pioneering study by the RAND Corporation, entitled, "A Data Processing System for State and Local Governments." A penetrating introduction to the problems of modern data processing and approaches available to progressive state governments.

The other is a study by Dr. Nelson Peach, of the University of Oklahoma and Drs. Richard Poole, Eugene Swearingen, and James Tarver of Oklahoma State University in association with the Midwest Research Institute. This study moves toward a common methodology for establishing comparable statistics on an interstate basis. It is based on the idea of using counties as building blocks for certain regional analyses. With the use of the county as the basic building block, many regional interests and problems can be analyzed for a complete state, several states or a region within a state. Copies of the Oklahoma study have been made available to members of this panel.

Important actions have been taken in recent months to give a new momentum to the drive for statistical

standardization among the states. For example, in August 1964, the move was endorsed by the National Association of State Budget Officers (NASBO), at their meeting in Atlantic City. In February 1965, representatives of the State Budget Officer group, the Council of State Governments, and the Oklahoma Ad Hoc Committee met with officials from Federal agencies with primary interests in standardization. There was a broad concensus on the desirability of moving ahead, but there was also agreement that much work and high-level support would be necessary.

Two activities now underway or about to begin deserve the special attention of each state governor.

1. One is the study initiated by Governor Brown of California through a contract with the Lockheed Aircraft Corporation to study state and local governmental requirements for information and how modern information technology can be applied to meet these requirements.

The California-Lockheed study* is of particular interest because it demonstrates the versatility of aero-

* A summary of findings will be made available on request to the Governor's office.

space companies to attack large-scale technical problems and it demonstrates the applicability of the "system engineering" concepts which we have found so useful at NASA.

2. The second effort worthy of special attention is a new study of "Advanced Fiscal Budgeting and Economic Development in States and Local Communities" at the George Washington University. The receipt of a substantial grant from the Ford Foundation for a major study to be carried out by economist Dr. Selma Mushkin who has long been active with the Council of State Governments and the Advisory Commission on Intergovernmental Relations has just been announced.

This new study will extend Dr. Mushkin's current study of methods for developing state-by-state projections of revenues by sources, and expenditures by functional category up to the year 1970.

Another new activity which merits special attention is the creation by the Council of State Governments of

an Ad Hoc Committee on Automation, Technology and Data Processing to study the impact of technological and scientific developments on government.

In short, many important changes are occurring which will help state and local governments in the areas of sophisticated use of advanced new information technology and administrative management.

Those states which do not take steps to keep up in this field will soon be left behind as the more progressive states forge ahead.

Nevertheless, it is clear that the goals of complete uniformity, perfect comparability and total integration of statistical and management information systems will not soon be accomplished. But it is equally clear that urgent efforts toward these goals are being made and are necessary if state and local governments are to keep pace with the needs of modern society.

While there are no quick and easy solutions, I believe there are important next steps which deserve your careful attention.

1. Establish a state statistical standards unit.

This step is necessary to create an appropriate administrative framework both for consolidation and standardization within the state and for comparability among the states. The placement of this unit will vary from state to state, but it must report to a high officer to be effective. New York State took this step with the establishment in 1964 of a Director of Statistical Coordination reporting to an Assistant Director of the Division of the Budget. And this year the Oklahoma Legislature established a Statistical Standards Division in the Budget Office with the Director reporting also to the Governor. Other states are moving rapidly to take this type of action.

2. Sponsor a National Conference on the Comparability of Statistics Among the States. This step is desirable to provide a means by which state statistical standards units can find the commonality of interest among states before they take final positions on the approach within their respective states. It has been suggested that the Advisory Commission on Inter-governmental Relations or

the Council of State Governments take the initiative in convening such a conference and in fostering cooperation by appropriate bodies at the federal, state and local levels.

It seems probable that rather than take on the entire problem directly and in its total complexity, functional specialities such as personal income statistics by county, education statistics, highway statistics, etc., could be set up and these integrated as quickly as possible. It is possible also that groups of states can convene regional conferences to discuss special regional problems.

3. Examine the applicability of modern information technology at the state and local levels. Many have found that the introduction of computers should generally not be considered simply as a means of carrying out existing procedures within existing organizations. Some institutional changes are almost always required to realize the full power of the new data systems. As state studies proceed, concurrent effort should also be made to utilize the

experience and research results of other states and the federal government. In this connection, the coordination activities of the Council of State Governments' Ad Hoc Committee on Automation, Technology and Data Processing and the U.S. Budget Bureau's ADP group can prove most helpful.

In closing, let me emphasize again that the timely availability of accurate, comprehensive data--based on valid and accepted concepts and definitions--will become increasingly important to the effective conduct of state government. The need for compatibility between federal and state data systems is recognized at the top levels of government, including such officials as Governor Bellmon and the Director of the Bureau of the Budget. I believe it must be recognized and acted upon by every state which hopes to meet the needs and aspirations of its citizens.

Governor Henry Bellmon, and your panel deserve high praise for highlighting this problem and bringing a positive action program before you.

Thank you for your attention.

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